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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,221	07/20/2001	Ross Guttromson	01P13031US	2701

Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
LE, DANG D

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/910,221

Applicant(s)

GUTTROMSON ET AL.

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 9-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected groups II and III, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.
2. Applicant's election without traverse of claims 1-8 in Paper No. 4 is acknowledged.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted of prior art (Figures 1 and 2) in view of Yamamoto et al.

Regarding claim 1, the applicant's admitted of prior art (Figures 1 and 2) shows an apparatus to prevent leakage of fluid in a fluid-cooled power generator, the apparatus comprising:

- A housing;
- A current bus assembly positioned outside the housing;
- A power generator having a rotor and stator contained within the housing and electrically connected to the current bus assembly;
- A high-current conductor electrically connected to and extending from the stator of the power generator;
- A sleeve positioned to substantially surround the high-current conductor and spaced apart therefrom to thereby define a fluid channel (42) bounded by a portion of the outer surface of the high-current conductor and a portion of the inner surface of the sleeve; and
- A protected seal (20) connected to an end portion of the high-current conductor and positioned adjacent the sleeve to prevent leakage of fluid from the fluid channel, the protected seal comprising:
  - A seal body positioned within the fluid channel between the high-current conductor and the sleeve to thereby define an end boundary of the fluid channel, the seal body having a first surface portion connected to an outer surface portion of the high current conductor and a second surface portion

extending adjacent an inner surface portion of the sleeve to permit the protected seal to readily move relative to the sleeve, and

- At least one sealing gasket (28) positioned on the second surface portion of the seal body to contact the inner surface portion of the sleeve, the at least one sealing gasket formed of a compressible and pliable material so that the at least one sealing gasket expands to prevent the opening of gaps between the seal and the inner surface portion of the sleeve when the seal moves away from the sleeve and contracts when the seal moves toward the sleeve to thereby prevent leakage of fluid when the protected seal moves relative to the sleeve.

The applicant's admitted of prior art does not show the protected seal comprising an abrasion abatement layer disposed on a portion of the second surface of the seal body to permit the protected seal to readily move relative to the sleeve without abrading the surface of the seal body when the seal body contacts the inner surface portion of the sleeve.

Yamamoto et al. show the protected seal (Figure 7a) comprising an abrasion abatement layer (123) disposed on a portion of the second surface of the seal body to permit the protected seal to readily move relative to the sleeve without abrading the surface of the seal body when the seal body contacts the inner surface portion of the sleeve for the purpose of increasing thermal resistance.

Since the applicant's admitted of prior art and Yamamoto et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to add to the protected seal with an abrasion abatement layer disposed on a portion of the second surface of the seal body to permit the protected seal to readily move relative to the sleeve without abrading the surface of the seal body when the seal body contacts the inner surface portion of the sleeve as taught by Yamamoto et al. for the purpose discussed above.

Regarding claim 3, it is noted that the applicant's admitted of prior art also shows the seal body of the protected seal being formed of a material having a thermal expansion coefficient substantially equal to that of the material from which the high-current conductor is formed such that the effects of thermally induced axial expansion in both the protected seal and the high-current conductor are substantially identical.

Regarding claim 4, it is noted that the apparatus of the applicant's admitted of prior art modified by Yamamoto et al. includes all of the limitations of the claimed invention except for the sleeve being formed of an insulating material and has at least one sealing gasket gland formed in the inner surface thereof such that the sealing gasket positioned therein is substantially insulated from seal-degrading electrical current.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the sleeve with an insulating material and provide at least one sealing gasket gland in the inner surface thereof such that the sealing gasket positioned therein is substantially insulated from seal-degrading electrical current, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Regarding claim 5, it is noted that the applicant's admitted of prior art also shows the sliding seal further comprising a flange (28) extending outwardly from an end of the seal body in a substantially radial direction relative to the seal body and connected (through 24) to the seal body to provide a conductive path from the high-current conductor to the current bus assembly.

Regarding claim 6, it is noted that the applicant's admitted of prior art also shows the protected seal further comprising at least one sealing gasket gland formed in the second surface of the seal body, and wherein the at least one sealing gasket is positioned in the at least one sealing gasket gland.

Regarding claim 7, it is noted that the applicant's admitted of prior art also shows the protected seal further comprising a flange spaced apart from the seal body and contacting the high-current conductor to provide a conductive path from the high-current conductor to the current bus assembly.

Regarding claim 8, it is noted that the applicant's admitted of prior art also shows an insulating gasket positioned between the seal body and the spaced-apart flange to inhibit electrical current along the second surface portion of the seal body such that the

sealing gasket gland and sealing gasket positioned therein are substantially insulated from seal-degrading electrical current.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted of prior art (Figures 1 and 2) in view of Yamamoto et al. as applied to claim 1 above, and further in view of Wilson.

Regarding claim 2, the apparatus of the applicant's admitted of prior art modified by Yamamoto et al. includes all of the limitations of the claimed invention except for the abrasion abatement layer comprises a soft metallic layer formed on the second surface portion of the seal body to thereby permit the protected seal to readily move relative to the sleeve without abrading the surface of the seal body when the seal body contacts the inner surface portion of the sleeve.

Wilson shows the abrasion abatement layer comprising a soft metallic layer (24, 25) for the purpose of preventing wetting.

Since the applicant's admitted of prior art, Yamamoto et al. and Wilson are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the abrasion abatement layer with a soft metallic layer formed on the second surface portion of the seal body to thereby permit the protected seal to readily move relative to the sleeve without abrading the surface of the seal body when the seal body contacts the inner surface portion of the sleeve as taught by Wilson for the purpose discussed above.



***Information on How to Contact USPTO***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL  
November 11, 2002

DL

Dang D Le